

Interview Agenda for Examiner Lori A. Clow

RE: Dougherty, Kim, Bittner, Chen and Sivakumar, "QUANTIFYING GENE RELATEDNESS VIA NONLINEAR PREDICTION OF GENE EXPRESSION LEVELS," Patent Application No. 09/595,580 (USA), filed June 15, 2000
Klarquist Ref. No. 4239-54279

Claim 1:

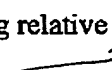
1. A computer-implemented method for quantifying gene relatedness for a plurality of candidate genes for which a plurality of gene expression level observations have been collected, the method comprising:

for a plurality of selected permutations of the plurality of candidate genes, performing (a)-(c) for each permutation: *-(an ~~adequate~~ basis problem)*

(a) based on data comprising the plurality of gene expression level observations for the plurality of candidate genes, constructing a nonlinear model predicting gene expression for the permutation of the plurality of candidate genes;

(b) predicting gene expression with the nonlinear model; and

(c) measuring effectiveness of the nonlinear model in predicting gene expression, the effectiveness being a quantification of gene relatedness for the plurality of candidate genes of the permutation; and

presenting a plurality of the quantifications of gene relatedness showing relative relatedness for a plurality of the permutations of the genes. 

coeff of determ. = effectiveness

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Analysis of Claim 1 only:**I. Overview of Technology****II. Rejection:** The Action rejects claims 1-54 and 61-65 under § 112, ¶ 1 as containing subject matter not described in such a way as to reasonably convey to one of skill in the art that the inventors had possession of the claimed invention. [New Matter rejection]

- A. The Action states “quantification equating to effectiveness of predicting gene expression rather than effectiveness of the model being used to predict gene relatedness.”
- B. The claim reads, “measuring effectiveness of the nonlinear model in predicting gene expression, the effectiveness being a quantification of gene relatedness for the plurality of candidate genes of the permutation.”
- C. For support, see the application at page 3, lines 7-10:
The nonlinear model predicts gene expression among the set of genes. The effectiveness of the nonlinear model in predicting gene expression can then be measured to quantify relatedness for genes in the set.
- D. Claim 1 is therefore supported by specification as filed.

III. Rejection: The Action rejects claims 1-54 and 61-67 under § 112, ¶ 2

- A. The Action defines effectiveness as, “to have an effect on something means to act on or create a response.”
- B. However, the claim term is “effectiveness” not “effect.”
- C. Action states that it is unclear how step (a) and (c) relate to (b) which is predicting gene expression. The Action states, “It is unclear how measuring the effectiveness creates a prediction of gene expression.”
- D. The claim states, “predicting gene expression with the nonlinear model” and “measuring effectiveness of the nonlinear model in predicting gene expression.”
A particular example is shown in FIG. 8.

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FAX TRANSMITTAL

DATE: December 5, 2003

TO: Please deliver directly to Examiner Lori A. Clow **DO NOT ENTER**

FAX PHONE: 703-746-7436

FROM: Gregory L. Maurer 

RE: QUANTIFYING GENE RELATEDNESS VIA NONLINEAR
PREDICTION OF GENE EXPRESSION LEVELS

OUR FILE: 4239-54279

YOUR FILE: Application No. 09/595,580

NO. PAGES 3 (including this cover page)

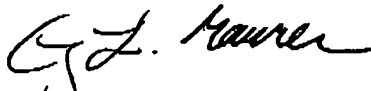
PLEASE ACKNOWLEDGE RECEIPT BY RETURN FACSIMILE? ☐ Yes ☒ No

CONFIRMATION TO FOLLOW? ☐ Yes ☒ No

CONTACT INFO: If you do not receive all pages or if you have problems receiving transmittal, please call us at (503) 226-7391 as soon as possible and ask for Amanda E. Holland.

MESSAGE: Transmitted herewith regarding the above-identified application is an Interview Agenda for the personal interview scheduled for December 9, 2003 at 12:00pm.
While in the Alexandria area, I can be contacted via my cell phone at (503) 490-7711.

Thank you,


Gregory L. Maurer

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